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THOMAS G. NEWMAN,
EDITOR.

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Editorial Buzzings.

A Swarm of bees that was captured in Birmingham, the other day, weighed 25 pounds.

Ex-Judge Douglass Boardman, of Ithaca, N. Y., departed this life on Sept. 4, aged 89 years. The deceased presided as Justice in the Supreme Court on the trial of the Rich vs. Olmsted case. The jury gave the verdict of 6 cents against Mr. Rich.

Golden-Rod and asters are yielding honey profusely now in some localities. Recent reports of the Fall crop of honey are very encouraging. Bees, in places where Fall flowers abound, will be well supplied with Winter stores. The late warm spell has been very valuable to fruit and flowers. Where there has been no rain, it has dried up vegetation, and some prairie fires have resulted.

Foreign Mails.—The Government has just issued orders to the Customs Department of the Postoffice, to confiscate all photographs, prints, and other reproductions of artistic or natural objects coming per mail; and stating that in future they must be sent by express company, and regular customs entry and duty paid on import going through the United States stores.

This Rule does no good, and much harm. Just think of the abominable administrative tyranny of confiscating a private letter from Europe, for instance, simply because it contained a photograph of father or mother, wife or child, who happened to be over there! It is an outrage and a scandal upon our pretensions to civilization.

We well know what it means to import small packages by express. The delays in delivering, the Custom House exactions and broker's charges, the days wasted in waiting for what should be promptly received, are discouraging and exasperating.

Huber's Letters on apiculture were republished as a supplement in the "International Review of Apiculture" for April, 1891, by our friend Ed. Bertrand, of Nyon, Switzerland.

Montana bee-keepers are invited by A. M. Day, of Brunswick, Mo., to write to him concerning the valleys near Helena, and describe their pastureage for bees, and fitness for bee-keeping.

Rain was forced from the clouds by exploding bombs last week, in Kansas and Texas, thoroughly soaking the ground, which has been suffering intensely from drouth. We have not only harnessed the lightning, compelling it to draw our carriages and run our mills, but we now also arrest the clouds and compel them to discharge their accumulated moisture and refresh the parched earth, when and where we desire it. Surely, this is an age of wonders.

Hives and Bees were swept away by a freshet. An agreement was made to purchase the swarms issuing this year, but there are none left to deliver. A correspondent asks this question:

MR. EDITOR:—I would like to ask you the following questions about an agreement for bees. I made a bargain for 30 swarms, and furnished my own hives to put them in at \$2 a swarm. They were to remain there until Fall, when I was to pay for them and bring them home. There was a freshet about the middle of August, which swept bees and bee-hives away. Now, should I be held to pay for the bees? If so, is he not responsible for my hives? They were in his possession.

If we understand the question from the statement of one party, we would say that in equity and justice the one should lose the bees and the other the hives.

The party who sold the bees was to deliver them when called for in the Fall. By means of a calamity, nature having destroyed them, he has no bees to deliver, and cannot make a good claim for the payment without tendering the bees—an impossibility!

It would be more equitable for the party having had the hives in his possession before they were washed away, to pay for them, than for the one who agreed to pay for and take the bees in the Fall (but which were never delivered to him) to be asked to pay for them without delivery, after the calamity.

We think that you should leave it as nature has left it, and call it square; thus dividing the loss.

Secretaries of affiliated societies (if they have not already done so) should at once send their present addresses to the Secretary of the "North American Bee-Keepers' Association" (C. P. Dadant, Hamilton, Hancock County, Ills.), in order to receive the new medals to which each association is entitled. He will forward them by registered mail as soon as the Secretaries are heard from.

Nothing New under the Sun, was an assertion of "ye olden time," before the advent of books or printing. It seems as though, in bee-keeping at least, there was considerable truth in that idea. It is very often the case that things considered quite new and original have been discovered, presented and described long ago; then they have been buried up for years, when, lo, some one discovers them afresh, and puts them to work, perhaps, with new combination, and they "go" without much opportunity to find their history in the "forgotten past." In this connection we reproduce from the *Rural Californian*, the following from C. N. Wilson:

How often, when we think we have invented something new, we find by referring to Quinby or Langstroth, that the idea was first originated by them.

There is a strong tendency now toward the flat cover. This we find described in Langstroth's work, issued away back in 1852. This flat cover is all complete, with cleats nailed on the end.

Everybody now-a-days seems to be going back to the eight-frame idea. Why, that came from Moses Quinby, L. L. Langstroth and Adam Grimm, away back in the '60's.

Thick and wide top-bars is another new fad. Still, we find essentially the same thing described in Langstroth's book.

Chancing a few days ago to look over some old hives—some that were made after Langstroth's early instruction—we observed that the frames all had top-bars $1 \frac{1}{16}$ inches wide and $\frac{1}{8}$ of an inch deep. The combs had been cut out of these frames, but by the propolis accumulations on them, it was evident that they had been used for a number of years. The remarkable part about it all is that they should bear no traces of burr-combs.

Again, there is a very strong tendency towards fixed distances. Here, again, we are going back to father Quinby. Why in the world did we not catch on to these things earlier? Langstroth and Quinby were so generally right.

The Tama County Fair will be held at Toledo, Iowa, Sept. 29 and 30, and Oct. 1, 1891. Will it have a good exhibit of honey?

Spraying Fruit is again being discussed, but from another standpoint. In New York, on Sept. 24, a lot of grapes showed signs of poison on the stems, and tons of them were destroyed by the Health Board. It subsequently developed that the poison with which the grapes had been sprayed was not Paris green or London purple, but what was called the Bordeaux mixture, a milder form of poison. The following is from the telegraphic report in the daily papers:

The Health Board experts do not undertake to say that the Bordeaux mixture is dangerous if properly used. It is supposed to be all right if used at the right time, which is when the grapes are just beginning to form, for the destruction of phylloxera and other insects which attack young and growing tendrils when they are very soft. But it seems probable that the farmers who have used it supposed that if it was a good thing once, in small quantities, it would be a better thing twice, in large doses. It is a mixture of sulphate of copper and lime. The inspection of the fruit already on the market will be continued, and all that is found to be coppered will be destroyed.

Fruit-growers should be warned by this incident. It is a criminal act to jeopardize the public health or life; and because they may lightly spray grape vines, just as the fruit begins to form, when it is soft and tender; they should not presume to douse the fruit with larger doses just before sending it to market—endangering human health and life!

We will add—because they may lightly spray fruit trees in the Spring when the fruit is forming, to prevent the ravages of the curculio—they must not presume to spray the blossoms with poison, thereby endangering the lives of millions of bees, and at the same time doing no good whatever! The curculio works on the fruit—not on the blossoms!

Should the bees deposit some of the nectar from the poisoned trees in the surplus combs, and these combs find their way to consumers, the law would

hold the fruit-growers responsible for the damages!

Let the tons of grapes destroyed last week in New York be a warning to all.

It is Interesting to see the implements used by apiarists in different countries. The engraving presented herewith is copied from *l'Auxilliaire de Apiculteur* for last month, and shows



the honey extractor now in use in France and Italy, invented by Prof. Sartori. It is very primitive in appearance, but it is substantial and practical.

The Shortage in the honey crop is very pronounced in the Western States, from whence usually comes the bulk of the honey crop. A leading apiarist of Iowa was asked by a reporter for the cause of the failure, and this was his reply:

We cannot explain it. It is inexplicable. Last year, dry weather and a scarcity of flowers had something to do with it, but this year there is an abundant flora. Bees usually draw pounds of sweetness from white clover, but although the fields were white with the blossoms, there was no honey in it. This is the story that comes from all parts of the country.

There have, occasionally in the past, been years when there was but little honey in the flowers, and when the bees had little surplus honey, but I have never known two successive years in

which this was true to the extent that it is in 1890-91. Last year there was a local scarcity of honey. The bees did not have enough to serve them as food during the following Winter, to say nothing of any surplus for sale. Last Winter we had to feed sugar to the bees, and this coming Winter we shall have to feed them more. The scarcity of honey this year is not only local—it is national. You may tell the housewives that honey is going to be very scarce and high this year.

About a Year Ago we noted the fact on page 707 of the *BEE JOURNAL*, that the apiarists of Switzerland and America assembled in annual convocation on the same day—at Lausanne and Keokuk. We then addressed a letter to our friend and collaborator, Mr. Ed. Bertrand, editor of the *International Review*, and enclosed a copy of our address on "Fifty Years' Progress in Apiculture," intending to have it read in both conventions at the same time. By the *International Review* we notice that it arrived in Switzerland one day too late for that assembly. It was, however, presented at the next meeting, and here is a translation of the item concerning it from the *International Review*, page 180, which arrived during our late trip to New Jersey, or it would have received earlier attention:

Mr. Bertrand asked permission to present a retrospective communication as follows:

"Our last assembly at Lausanne occurred on Oct. 30, the same day as the convention of the American apiarists at Keokuk. Mr. Thomas G. Newman, the eminent editor of the *AMERICAN BEE JOURNAL*, mentioned the coincidence in his *JOURNAL*, and on that occasion addressed a charming letter to me, which, unfortunately, did not arrive until the day after our reunion. He also sent to me the text of his address given at Keokuk, entitled "Fifty Years' Progress in Apiculture."

It is just 11 years since he assisted at our Reunion at l'Hotel de France, and through me he presents his fraternal salutations to Swiss apiarists, particularly to those with whom he then had the pleasure of becoming acquainted. I am sure that all of us who met him at

Lausanne 11 years ago, are happy to receive these new assurances of Mr. Newman's esteem and friendship.

Mr. Nouguier, and a number of the older members, thanked Mr. Newman for his kind remembrance, and requested Mr. Bertrand to convey to him their best wishes and salutations (applause).

Mr. Dibbern is now at work on a new bee-escape, which he calls the "American Super Clearer," and he thinks it will supersede all others.

Crops.—A leading agricultural journal estimates that the produce of our farmers will be worth one billion dollars more this year than ever before.

Punic Bees are getting some hard blows from good apiarists.

Mosquitoes, which delight in disturbing sleeping humanity, can easily be foiled by using a Globe Bee-Veil.

Disgusted.—Last January the *Bee World* was started as a monthly bee-periodical. It omitted issues in February and June, and died after publishing the July number, as will be seen by the following just received:

WAYNESBURG, PA., Sept. 25, 1891.
I have discontinued the *Bee World*. You will please stop sending me your *AMERICAN BEE JOURNAL*, as I am going out of the bee-business.

W. S. VANDRUFF.

Few Young Mothers have access to the latest information regarding the diet of infants and young children, and it is therefore with pleasure we recommend for the perusal of all who have anything to do with children, the exhaustive article "How and What to Feed the Baby," in the October number of *Demorest's Monthly Magazine*. It is published by W. Jennings Demorest, at 15 East 14th St., New York. Price 20 cents. For sale by newsdealers.

The Wasp and the Bee.

A wasp met a bee that was buzzing by,
And he said, "Little cousin, can you tell me
why
You are loved so much better by people
than I?"

"My back shines as bright and as yellow as
gold,
And my shape is most elegant, too, to behold,
Yet nobody likes me for that, I am told."

"Ah, cousin," the bee said, "'tis all very true;
But if I had half as much mischief to do
Indeed, they would love me no better than
you."

—Observer.

Querles and Replies.**Width and Thickness of Top-Bars.**

QUERY 786.—What width and thickness of top-bar is preferable for brood-frames?—Penn.

I prefer an inch.—M. MAHIN.

I use $\frac{5}{8} \times \frac{1}{8}$ inches.—J. M. HAMBAUGH.

I prefer them $\frac{5}{8} \times 1\frac{1}{8}$ inches.—MRS. L. HARRISON.

Not less than 1 inch wide and $\frac{1}{8}$ thick.—C. C. MILLER.

I do not know. I use them as light as possible.—R. L. TAYLOR.

I use top-bars 1 inch wide and $5/16$ thick, and desire no change.—G. M. DOOLITTLE.

I use $1 \times \frac{1}{4}$ inch thick, and like them very much. My top and bottom-bars are alike and invertible.—C. H. DIBBERN.

One inch wide and $\frac{3}{8}$ to $\frac{1}{2}$ inch thick, according to the length of the top-bar, and the weight it must bear.—G. L. TINKER.

We use $\frac{1}{2}$ inch width and $\frac{1}{8}$ thick, but a wide top-bar is very good. A $1\frac{1}{8}$ top-bar will almost do away with burr-combs.—DADANT & SON.

It depends on the size and depth of the frame. The full size Langstroth, $1\frac{1}{8}$ wide by 1 inch deep will make a top-bar that will not sag.—EUGENE SECOR.

I would like to have the top-bars of my standard size frames about $\frac{3}{8}$ inch thick and 1 inch wide. As I now have them they are $\frac{5}{8} \times \frac{1}{8}$, and many of them

have sagged, and therefore do not "space" as accurately as I could wish.—G. W. DEMAREE.

I prefer a top-bar $\frac{3}{8}$ thick and $\frac{1}{8}$ inches wide, if an open top-bar; but if closed-end top-bar, $1\frac{1}{8}$ inches wide. I also recommend the triangular comb-guide.—J. P. H. BROWN.

This is a mooted question. With my experience I should say $\frac{1}{8}$ wide, and thick enough never to sag. Then I should use slatted queen-excluding honey-board.—A. J. COOK.

As a rule, $\frac{1}{8}$ wide, and as for thickness or depth, that depends upon the style of hive and frame. For the Langstroth frame, I prefer $\frac{1}{8}$ to $\frac{1}{4}$, exclusive of any guide, if any modern guide should be used.—JAMES HEDDON.

With the exception of a few $\frac{1}{8}$ of an inch square, used for two seasons as an experiment, I have used those that were either $\frac{1}{8}$ or $\frac{1}{4}$ an inch thick. If I did not use a wood-zinc queen-excluding honey-board between brood-nest and super, I believe that (with my limited experience) I should try the thick top-bars and no honey-board.—A. B. MASON.

I prefer $\frac{1}{8}$ inch to $\frac{1}{4}$ inch thick, and $\frac{1}{8}$ inch wide. I find the above thickness gives ample strength for the ordinary Langstroth frame. A longer frame might need to be a little thicker, though I think not. I have found $\frac{1}{8}$ inch thick, wired and braced Langstroth frames amply thick in my own hives.—J. E. POND.

The thin top-bar "craze" held sway for a long time, but now it may safely be said to have passed away. Nearly all apiarists now agree that thick top-bars are essential. Our preference has always been for the V-shaped top-bar, $\frac{1}{8}$ of an inch wide, and 1 inch deep, because it never sags, and is very convenient and substantial. Now, the "craze" is reversed, and thick top-bars are demanded. Those in the dovetailed hive are 1 inch wide and $\frac{1}{8}$ of an inch deep, exclusive of comb-guide.—THE EDITOR.

The Northwestern Convention will be held in Chicago on Nov. 19. Let every bee-keeper in the Northwest make arrangements to visit the metropolis on that date, and attend the bee-keepers' love-feast. It will be held at the Commercial Hotel. See official notice on page 440.

Topics of Interest.

Iowa State Bee-Keepers' Convention.

J. W. BITTENBENDER.

The Ninth Annual Convention of the Iowa bee-keepers met in their tent on the State Fair Ground, at Des Moines, on Tuesday, Sept. 1, 1891.

Meeting called to order at 1:30 p.m., with the following officers present: President, Vice-President and Treasurer.

The Secretary being absent, Mr. E. Calvert was chosen Secretary *pro tem.*

Reception of new members. Mr. C. D. Levering read an essay on Spring Dwindling, in which he brought out several good points. He prevented dwindling by having his colonies rear brood; inserting empty combs in the center of brood-chamber, and feeding to stimulate brood-rearing late in the Fall, and have his bees go into Winter quarters with plenty of young bees, claiming that young bees were not subject to Spring dwindling.

Mr. Kretchmer said he could prevent dwindling better by using sectional brood-chambers, keeping them on one section until strong enough, and as the season advanced, add another section.

Mr. Bittenbender stated that he could not get enough honey in one section of a brood-chamber to rear enough brood.

Mr. Kretchmer then said to add another section.

Mr. Bittenbender then stated his experience with the sectional brood-chamber. It could not be added to early in the Spring to advantage, his idea being that sectional brood-chamber hives would give too much room by adding a full section at a time, and his objection also was that it took too much space in the center of the hive, where the broodnest generally is located. He would much prefer a single story hive in the management of Spring dwindling. He could then contract his hive to one or more combs by using dummies, and add combs as he found the temperature and queen demanded.

J. W. Bittenbender then read an essay entitled

Best Bee for this Country.

This is a very interesting subject, and one we are all more or less interested in. I speak from personal experience. I have handled Italians, German blacks, Cyprians, Syrians, Albino, and the Car-

nolans—all so-called different races of bees.

I do not know that I know more about bees than common folks, and if I was to say the best bee for myself, I would say a stingless bee, but the subject calls for the best bee for this country.

If I say the German black bee, you will call me a crank, and Kit Clover would never write on bee-culture again.

In some respects I say the Italians are best.

If I say the Cyprians, you may say, Dunder und blitzen! What bees for this country! If I say Syrians—what kind of bees are they? If I say the Albino, you know it is not so. If I say the Carniolans, you will invest your money foolishly, and may call me a fool also.

I believe my subject calls for the best bee for the country. My experience is decidedly in favor of the Italian and German black bee. While every race of bees has more or less good qualities, we find more combined in these two races.

Italians are gentle, prolific, good honey gatherers, slow to rob, good comb builders, fair cappers, and excellent home protectors; while the German black bee is prolific, gentle, good honey gatherers, excellent cappers, less inclined to swarm, and easy to shake off the comb. While the Italians have found favor with bee-keepers, they have bred and petted them to about eight different colors, and perhaps if bee-keepers had taken the same care of the German bee that they do of the Italians, they would, perhaps, have a bee far superior to any.

Oh, what does common folks know about bees, anyhow?

Knoxville, Iowa.

The reading of the essay was followed by a lively discussion.

Mr. Kimble stated that he was surprised at Mr. B. saying the black bee was the best.

Mr. Secor said that Mr. B. did not exactly say that the black bee was the best.

Mr. Kimble then gave his experience with black bees, stating that he had kept black bees for eleven years, and could not make it pay. For eleven years he had kept Italians, and now always had plenty of honey to sell, and to make fine exhibits at fairs, and that his neighbors who had black bees were going out of the business, saying that bee-keeping did not pay.

Mr. Adams stated that he preferred the Italians.

Mr. Bittenbender said that he much preferred the black bee to cap honey, as

they secreted wax faster and capped whiter, using more wax in capping the honey.

Another member stated that the black bee either raised the capping, or did not fill the cells so full as did the Italians, thus giving the capping a whiter appearance.

A member stated that Italians made as white wax as did the black bees.

"Bees and the Farm," an essay by W. M. Bomberger was called for, but that gentleman not being present, it was laid over for the next day's meeting.

"Is Bee-Keeping a Suitable Occupation for Women," an essay by Miss O. F. Jackson, was next on the programme, but the lady not being present, and subject not presented, it was stricken out.

Adjourned to meet next morning.

WEDNESDAY, SEPTEMBER 2, 1891.

Meeting called to order at 9:30 a.m., by the President.

Treasurer's report was received, stating that all expenses were paid, and that \$12.55 remained in the treasury.

Next in order was the following essay by C. P. Dadant, but Mr. Dadant not being present, the essay was read by the President:

Prevention of Swarming.

Mr. President, Ladies and Gentlemen :

The subject of "Prevention of Swarming," is one of those which have tried the patience of bee-keepers for many years. The prevention of swarming in any case would be a very desirable attainment, but up to this date it has been found impossible to achieve anything towards this purpose when using small sized hives, especially when the production of comb-honey is desired.

There is, however, a method by which the production of natural swarms is almost entirely stopped, but in order to explain this method in an intelligible manner, it is necessary to state the main causes of natural swarming.

Swarming is a natural impulse which causes the bees of an overcrowded hive to separate and emigrate from their home, exactly as the first children of a large family leave home to seek their fortunes elsewhere. In a state of nature, a certain amount of swarming is necessary to make up for the colonies that become extinct by starvation, cold, accidents, or other causes. In domestication, with the modern inventions, artificial swarming, or the dividing of

colonies, proves much more economical and safe. There is, therefore, no reason why the propensity of the bees to swarm should not be checked whenever desired.

An experimental practice of some 25 years on this subject, enables us to state that swarming may be prevented altogether with the following precautions:

1. The hive must be large enough to accommodate the most prolific queen. We may give our bees any amount of surplus room, but if the brood-chamber is so small that a good queen will be compelled to drop her eggs when mature, for want of cells to lay them in, the bees will at once understand that their hive is no longer adequate to their wants. The size of the brood-chamber is thus of the utmost importance, especially if the bee-keeper is using queen-excluders, which will compel the queen to remain in a certain apartment.

2. The upper stories, as well as the brood-chamber, must be large enough to accommodate the largest population, and they must also be easy of access, so that the bees may ventilate every part of them. Many bee-keepers do not realize the fact that it is at the expense of a great amount of exertion that the bees succeed in keeping the temperature down to blood-heat during the hot days of Summer. It is not to be wondered at, if bees desert their hives rather than carry honey up into a super which is connected with their main apartment by only a very small aperture, through which it is well-nigh impossible to send any fresh air, in spite of the indefatigable energy of the fanning workers, who take upon themselves the task of sending a current through the whole hive, and who keep at work night and day, for this purpose.

Another requisite for success in the prevention of natural swarming, is to have the supers on the hive in time, a little ahead of the crop; but if the bees find themselves crowded, were it but for a few hours, they will at once make preparations for swarming, and after they have contracted what is called the swarming fever, no amount of coaxing can appease them, and they will swarm, in spite of all the room that may be given them.

Again, to succeed in preventing natural swarming, it is necessary to remove the drone-comb in early Spring (or at least the excess of it), and replace it by worker-comb. A great number of those big, burly, noisy fellows is sure to annoy the bees enough to induce them to leave their home for more pleasant quarters, and in most cases where the first swarm

is found to swarm again in a few days, it contains a great number of these drones, who have followed it by chance.

Some attention should also be paid to the location of the hive. If it is well shaded by trees or shrubs during the hot hours, or by an artificial shelter, if the hive is sufficiently open to give a good opportunity for ventilation, so that the bees may not be compelled to cluster on the outside, but on the contrary are able to stay inside and work at all times, and especially when the crop is good, and there is plenty for them to do; if, in short, all their needs are well looked after, there will be but little danger of swarming. In fact, the only cause of swarming outside of the causes mentioned above, is the rearing of a young queen to replace the old mother.

You are all aware of the fact that bees supersede their queens when old and worn out. It very often happens that the old queens begin to show signs of failing after the profuse laying of the Spring, and in the midst of a good harvest. It is then that the bees prepare a successor, being probably induced more readily to do this by the fullness of the harvest, and while the young queens are being reared it takes but a trifle to induce a swarm to issue with the old queen. Such a swarm is of but little value, as the old queen often fails soon after and leaves them queenless, or becomes a drone-layer.

The method which we have been following for a number of years, of producing only extracted-honey, and placing supers full of empty combs every season, on the hives, at the beginning of the harvest, has proven successful in nearly every instance, and we found that failures were nearly always caused by an unexpected large flow of honey, which took us unawares, so that we had not the time to give the bees sufficient room before they had made preparations for swarming.

It is more difficult to succeed in preventing swarms, when producing comb-honey, and for this reason I believe that a discussion among the members of this association upon that question will prove beneficial to many, and will bring forward new ideas.

The object of this essay was to introduce the subject, and I will be glad if it can cause the elucidation of some point of importance at this meeting, for there is not a more important subject than this in the study of bee-keeping.

Hamilton, Ills. C. P. DADANT.

Mr. Bittenbender thought large hives very good, but not a permanent cure.

Mr. Nysewander's experience proved to him that entrance guards were a good preventive of swarming.

Mr. Levering thought entrance guards too small, or in practice they will prove failures.

Mr. Kimble considered the extractor the best resort.

Another brother thought it best to let them swarm, and they would then be satisfied.

Mr. Secor gives room early in Spring, and thus prevents swarming to a great extent. If they swarm, he places a queen-excluder on his hives and the surplus receptacles, and sets the new swarm on the old stand, which is known as the Heddon system. Mr. Secor also thought that young queens tend largely to prevent swarming.

An essay by Maude Meredith was read, entitled

Lights and Shadows.

I am glad your committee gave me such an indefinite subject. It is so much better for the subject. Besides, coming as it does, at the close of such a feast of good and valuable things, it may pass as a sort of desert—a whipped-up trifling of nothingness, that serves only to keep us dallying at the table for yet a little longer time.

I suppose, in bee-keeping as in anything else, the lights and shades will seem to fall in different ways to different people, so I may be obliged to make a personal matter of it, and tell only how they strike me.

To begin where the bee does, at the beginning of the season. When we get our hives all nicely out on the summer stands, and the warm sunshine drops over them and whispers to the bees of swelling buds in the maples' crown, and fragrant tassels in the willow fringes along the river's winding ways; when we hear again the cheery hum of the little fellows, glad to be let out from their long Winter prison, then we fold our hands, having nothing else to do, and decide that bee-keeping is the most delightful occupation in the world, and we actually wish we had a thousand mere colonies of bees.

Then we go into the house and bring out a pint of rye flour, and put it in shallow boxes on the sunny side of the hives.

By and by, we go out again to look at our bees, and find great colonies of workers of every kind, and color, and previous condition of servitude, buzzing

and roaring above those boxes, waiting their turn, as it were, for a dip into that flour.

Meantime, such a fanning of wings has blown the flour into a great white circle all around the boxes. This is jolly. You never saw happier or more eager bees, and as for good nature, why an everyday, common house fly is not a circumstance.

By and by your neighbors come and ask why you were throwing flour on their bees' backs, and you, in return, ask them why they allow all their scrub stock to steal into your private preserves, and carry off half the rye flour you had set out for your own colonies.

Then, come on the days of fruit bloom, when your own orchards—and those of your neighbors—are like feathery drifts of snow, touched and tipped with the rosy fingers of the dawn, and every little wayside plum tree is a poem in white.

How you have watched the bursting bloom, how solicitous you have been lest rains come up, or cold winds blow, and when Old Probabilities does give you just the warm, sunny days that you want, how the joyous hum of the bees fills the air, and the honey the empty cells.

If the bees were well fed early in the season—and I believe just as much in feeding bees as in feeding cows—there will soon be hives overflowing with both honey and young bees. You go out, now in the soft sunshine, putting on surplus cases, opening up the entrances, and dilly-dallying generally around among those bee-hives.

This is delightful. This is the sunny side, surely, and we may safely set this down as one of the "lights" of bee-keeping. The bees are very happy, and so are you.

The next morning, about 10 o'clock, you hear a roar, and dropping everything else, you sort of work over toward that sound. Yes, just as you expected, there is a swarm out.

Now, if you are like me, you have your queen's wing clipped, so all you have to do, is to take your old hive away, substitute another, head the queen into it, and there you are, smiling, cool, serene, and happy in another colony of bees. This, to me, is one of the decided "lights"—high-lights, in fact—of the business.

But, here is the companion picture: About eight days later you hear another roar, and rush out to find the second swarm coming out of that same hive. You watch them, and perhaps you

throw some water up among them, which does not seem to bother them any, and they keep on criss-crossing each other, weaving a web in diamond pattern big enough to cover a farm, so it seems to you as you stand gazing up through it, and then slowly they begin to settle—on the very highest branch of the tallest tree in the yard.

You get a ladder, and after infinite pains and puffing, find it does not go more than a fourth of the way up to the cluster, which is growing larger and larger every moment.

There is the hive waiting for the swarm; there is the swarm at the top of the tree; and there you are at the bottom. What are you going to do about it? This, to me, is one of the shadows—dense, impenetrable—for the swarm always goes off and leaves me standing there alone.

But this very subject of clipping the queens' wings, oh, I know just which authority does, and which does not agree with me—oh, I mean, disagree, principally, with me—but yet, in spite of it all, I will clip the wing. You have all heard of the boy who had got to get the ground-hog, whether there was or was not one in the hole. Well, clipping the wing is a sort of a ground-hog case with me.

If you cannot climb trees, you must see that your queen is equally disabled, or lose your swarms. And this same clipping business has its lights and shadows also.

On a sunny morning, while honey from fruit bloom is coming in freely, if you open your hive, lift frame after frame, and having found your queen, ask your assistant to hold the frame while you pick off the queen and snip her wing, and, replacing the frame, close your hive with a swelling sense of satisfaction, then you have seen the sunny side of wing clipping.

If, however, you wait just a day too late, until the uproarious bees, intoxicated with the flow of honey that has set them wild for the last few days, but has now ceased, are out on regular foraging parties, ready to waylay and rob every one or any one, and you then get your hive open, your frame containing your queen out, and being alone, you begin to chase from side to side of that frame after the most lively queen you ever happened to see, and suddenly, as you notice that the thermometer must be 98° in the shade, while it is, at least, 110° under the bee-veil, just then you hear the shrill buzz of a pioneer robber, as he hovers an instant above your head,

and just as you think you are ready to snip that wing, all the colony below you hear the same robber cry, and are up in arms instantly.

You are sure this colony will swarm to-morrow if you do not catch that queen, and you are equally as sure that you will wish they had swarmed a year ago if you do not get out of this right quick, and there you are. This is the shady side of that part of the work.

Later on, when the lindens swing their creamy tassels, and the great trees are filled with that peculiar happy hum of bees that are gathering legitimate stores of sweets—for even a bee does not sing in a happy strain when robbing others—and when all the pastures are white with fragrant clover bloom, then we place a hive upon our scales, and feel that peculiar glow of exultation that we all understand, but could not explain in words, when we see the weight coming slowly and steadily down, and realize that it is being thus lowered by pure, clear stores of the sweetest of all sweets—honey.

This is, perhaps, the bravest light of them all. For much as we may love bees for themselves, for their wonderful intelligence, their thrift and tidiness, it must be admitted that it is human nature to smile most serenely when the hard cash, or its equivalent, is coming rapidly in.

Later still, when we begin to take off this luscious store, then you—if your apiary is situated as mine is, in the sunniest part of the garden—cannot possibly connect the word “shadow” with this part of the work, except in a very figurative sense. But in this sense it comes out strong.

We always manage to have honey to take off after the flow is over, and this is the time that robbers abound, and of all disagreeable things I hold the hum of a robber bee the worst. I have a very vivid remembrance of this sound. I have had experience with it, and it happened in this wise :

I had occasion to hold two or three frames of honey for a few days, so I hung them in an upper story, and set them on the side-table in the kitchen. A few days later, my girl came in to say that there were two or three bees on the kitchen window.

Now, I knew I ought to go and attend to that honey, but I was writing something—probably an article on the proper care of honey—and did not want to stop; besides, the bees had been having such fine pasturage, that I did not

really think it could be quite gone. So I kept writing.

An hour or two later the girl went back to the kitchen again. I heard a wild shriek, and rushed after her. She was in the dining-room nursing a sting, but motioned me toward the kitchen. I opened the door.

Words fail me! That room was like a hive. All the swarms that ever issued never filled the air as completely full, and fresh train loads arriving every second. At first, I rushed in with some vague idea that I could “shoo” them out, but they convinced me to the contrary, and I ducked and dodged back, and stopped to poke about a dozen out of my frizzles. Then, I put on my regular regiments, went bravely outside, closed the door and shutters, and tried to smoke them out. It did not work, for they came in faster than they went out.

At last, driven to desperation, I caught up the roaring hive, and actually carried it down cellar. I shall never forget the horrible roar, and I never want to hug up as much noise and viciousness again and hold it so, while I descend into a dark cellar. I did not get a sting, but I got experience.

In removing section crates from hives, I find one of my dark shadows. With the average hive I can combine a chisel and muscular force, and, as the dead beat says, “make a raise” of the fullest crate.

But I have some of Mr. Hilton’s double-walled hives, and I hope he is here to hear me say I do think them the prettiest hive in the world—but when it comes to the matter of lifting off the crates, I fail to see how any man living does it. Here a chisel cannot be used. In fact, I hardly know what can. About the only thing I ever noticed any man who helps me use, in this place, was bad words, and they did not seem to lift a bit.

Now, according to my notion, if some bee-keeper will invent some argument by which bees can be convinced, as fully as I am, of the folly displayed in so pasting the surplus honey crates down onto the hive, he will throw a great and needed light onto this very dark and sticky part of the pleasure of bee-keeping.

Every good housewife knows, though usually she is not a bee-keeper, that more than all the pride she takes in her rows of well filled fruit cans, her glasses of ruby jelly, and her jars of luscious preserves, and snappy pickles, is the pride she feels when she sees her store of Winter goodies augmented by crates

of well filled sections, white with the very bloom and fragrance of the clover fields, and sweet with all the suns of the passing Summer. This is the sunny side.

The shady side. Odd is it not, that no real lover of bees is ever willing to make any remarks under this head? And as I am a bee-lover, I believe I will follow so worthy an example set by others. I will not speak of the barren honey seasons, the diseases that trouble the bee-keeper, nor the disposition on the part of irate bees to, at times, risk their very lives simply for the gratification of their tempers. Into this last we can all of us enter with sympathetic fellowship. How often do we take the same risks with very similar results.

I can so thoroughly understand the bee's feeling at such times as not even to blame her when she hits me. But I would like to know of some efficacious remedy to apply—after I have brushed the sting off. However, this is verging too near to a tender portion of our subject—that part of it, in fact, where silence is golden.

But taken all in all, there is much sunshine and little shade. Much real enjoyment and few stings; many lessons of thrift and promptness, for no laggard ever made a success at bee-keeping, and few disappointments, in this round of the honey-bee's year.

When from Winter's icy spell
Burst the brooklets in the dell,
With a song;
When the early robins call
From the sunny garden wall,
All day long;
When the maple buds awaken,
And the willow's fringe is shaken,
To the daffodils;
When the dandelions bright
Dot, with disks of golden light,
All the hills;
When the Spring has kissed the world again,
And the apple blossoms whiten,
And the grasses gleam and brighten,
Then we listen to the music
Of the honey-bee's refrain.

When the lilies, snowy white,
Gleam upon the lakelet bright,
'Mid their leaves;
When the twittering swallows fly,
Building nests so safe and high,
'Neath the eaves;
When the clover lifts its face,
And the linden's dainty grace,
Passes by;
And the heart's-ease blushes red,
When her bold bee-lover fled,
With a sigh;
When Summer decks the mountain and the plain,
When she binds her golden sheaves,
When dust-laden droop her leaves,
Then we gather in the honey
While the noisy bees complain.
When the maple forests redder,
And the sweet ferns brown and deaden,
On the lea;

Straightly furrowed lie the acres,
And we hear the roar of breakers,
Out at sea;
When the birds their columns muster,
And the purple frost-grapes cluster
On the vine;
And the Autumn winds are sighing,
Springtime dead, and Summer lying
Here supine;
When the dreary winds are filled with sounds
of pain,
When the crickets shrill are calling,
When the golden leaves are falling
Then our busy workers slumber
Till the Springtime comes again.

MAUDE MEREDITH.

Dubuque, Iowa.

The question-box was then opened.
Question—Why is it that honey-dew is sometimes called bug-juice?

Mr. Smith says, because that is what it is.

One member was positive honey-dew was sometimes present when no aphides could be found by microscopic examination.

Time being limited, the question-box was closed, and the regular programme taken up, next in order being the

President's Address.

Ladies and Gentlemen:

This Society was organized in the Fall of 1883, on the old Fair Grounds, west of this city.

The Rev. O. Clute, author of that charming book, "Blessed Bees," and now President of the Agricultural College of Michigan, was its first President. He, and such honored names as O. O. Poppleton and Dr. Oren gave it a character which we hope may continue with it during its corporate existence. If it has not been a success since those worthy men ceased to labor for it, it is because the bee-keepers of Iowa have not taken the interest in it which they should have done. No society can do the work expected of it, and for which it was organized, without the active co-operation of those who are interested in the pursuit which it seeks to foster.

We are often appealed to as a society for assistance to advance some measure thought to be of interest to us all as bee-keepers. Few people seem to realize the fact that an association, in order to wield a large influence, must be united in its aims, and the larger its membership, and the larger the constituency represented, the larger will be the influence exerted.

I make these remarks to convince you of the importance of a larger membership and united action.

How many bee-keepers have we in Iowa? It is impossible to say; but no

one, I think, will deny that there are thousands. These thousands, as well as thousands of others who are interested in the product of the apiary, or in the bee as a valuable friend to agriculture and horticulture, need educating.

Bee-keepers need educating along the line of uniformity of package and price. They need to know the magnitude of the industry which they represent. They need to know when, and where, and how to sell their product. They need to know honey-dew from the product of white clover, and the dangers to the business from putting it on the market. In short, they need educating along all lines in order to make the industry of bee-keeping respectable and respected.

Until all bee-keepers know how to utilize to the very best advantage the product of their field; until they know worthless patented clap-traps from valuable essentials in the apiary, and until we are able to extract from nature's laboratories, with the least labor and greatest profit to ourselves, the sweets now wasted, the mission of these societies is not accomplished. And until the people are educated to know that bees are friends, and not enemies; that they aid in fructifying the labors of the agriculturist, horticulturist, and market gardener; until they know that honey cannot be made by the groceryman, nor comb-honey by machinery, our work is not ended.

I, therefore, exhort you to renewed interest and devotion to the only society in Iowa which has for its object the protection and culture of insects friendly to man, and the utilization of a natural product which enriches no man unless gathered.

I have not at hand the Eleventh Census Report, but in the one published in 1880, the product of honey for the year 1879, in the United States, was given at 25,743,208 pounds, and of wax 1,105,689 pounds, aggregating nearly four and one-fourth millions of dollars' worth of product. I think the year 1879 was not a good one for the bee-keeper in many parts of the country. I expect to see a much better report for the year 1889.

Regarding this report, I quote from the Annual Report of the Secretary of Agriculture for the year 1889. J. R. Dodge, Statistician, under the head of bee-keeping, says: "Among the minor branches of rural industry, bee-keeping is one of the most important, though its prominence is not generally recognized, from the fact that it is almost everywhere carried on as an incident of

general agriculture, and but rarely as a leading rural occupation. Every State and territory reports bees and more or less honey, usually a hive or a few colonies for each farmer, rather than extensive apiaries and large production.

"In some localities, as in portions of New York, Ohio, Tennessee and California, where existing conditions are particularly favorable, apiculture is more prominent, dominating other industries, perhaps, in a neighborhood, though very rarely the leading branch of agriculture over any considerable area. The value of the annual product of honey and wax is not generally realized; they are produced more or less extensively in every section of the country, and the aggregate value is large—much larger than that of other crops of which more notice is usually taken. It almost equals the value of the rice or the hop crop, falls but little short of the buckwheat product, exceeds the value of our cane molasses, and of both maple syrup and sugar. It largely exceeds the value of all our vegetable fibers excepting cotton, and in 1879 was half as large as the wine product of the year."

The time is drawing near when the appropriations will be made to represent our State at the World's Columbian Exhibition. The different State societies will undoubtedly present their claims to the proper authorities, that the industries which they represent may not be forgotten or neglected.

I recommend the appointment of a standing committee to meet the Iowa Columbian Commission, or such other committee or body as shall have a voice in distributing among the organized industries of the State, the appropriation which shall be made by the next General Assembly.

Whether it will be wisest to confine our bee and honey show to the building to be erected by the State, or to exhibit all aparian products and appliances from all the States in one of the Government buildings, thus bringing together in one grand exhibit, the honey producing possibilities of our country, I am not fully convinced, but in either case we ought to have the means provided, and the services of an expert to collect and arrange the exhibit from this State. I trust you will heartily co-operate in this needed action.

This country has made rapid strides in art, in invention, and in material prosperity in the last hundred years. As we measure off one cycle of aparian progress, the opportunity is presented to us to exhibit to the world what American

genius and energy has accomplished in the field of apiculture. Great has been our improvement in many fields, in none has there been greater progress than in the industry which we here represent.

Go back 100 years, and note the condition of apiculture. The science was unknown. It had scarcely any literature outside of the poetry of Virgil, which, though written before the birth of our Savior, was barren of any benefits to bee-keeping. The bee-hive was an unsolved riddle. Its mysterious inmates, from which the people endeavored to filch a portion of God's bountiful gifts by "killing the goose that laid the golden egg," were objects of superstitious reverence. Poetic attributes and superhuman wisdom were ascribed to them. The profoundest ignorance as to their habits and capabilities was common among the people. It is safe to say that more positive and practical knowledge regarding bees has been brought to light in the last 100 years than was ever known before, unless bee-keeping, like some other industries, had become a lost art during some of the revolutionary struggles of former times.

Since Huber published his observations on the habits of the honey-bee in 1792, and since Langstroth, by his invention of the movable-comb, made the hive an open book, practical and scientific apiculture has made giant strides forward.

A hundred years ago the honey of commerce was insignificant in amount compared with that of to-day. Our aparian appliances are as far ahead of those used by bee-keepers then as the self-binder is better than the old sickle, or the electric car is ahead of going afoot, while in the matter of breeding, and the introduction of foreign races through the daily mails, we are familiar with what would have been a marvel in Huber's time.

American invention in aparian implements is leading the world. This progress is what the bee-keepers of the United States must show at the Columbian Exhibition. Iowa should do her part toward making it a success.

Perhaps some of you know that the North American Bee-Keepers' Association have prepared silver medals to present to every society which becomes affiliated therewith, by the annual payment of \$5. Two of these medals will be given to each society. They are expected to be used as premiums for the finest displays of comb and extracted honey. I recommend that this society take the necessary steps to continue its affiliation. The stimulus to competi-

tion which these medals will give to next year's exhibit at the State Fair, ought to bring out a fine display. They can be offered by this society in addition to the premiums offered by the agricultural society, under such rules and restrictions as you may think best. Some action will be necessary before another meeting.

Before closing, allow me to congratulate you on the improved appearance of our exhibit this year.

Enlarged space and better accommodations have been provided for the Iowa bee-keepers. This only corroborates what I said before, regarding the power of organized and persistent effort. The added facilities were granted at the request of your committee. I have found everybody connected with our department anxious to grant all reasonable requests.

Whoever would take a place in the front rank of bee-keepers of to-day must understand that the road to success lies not through the sunny plains of indolence, but rather over the rugged hill country of constant endeavor. Mental and physical activity are as necessary as in any other occupation. The one who thinks that bees work for nothing and board themselves, had better buy his honey. The bee-hive is not like the sugar maple—to be tapped once a year.

One who has not the ability to plan, the energy to execute, and the patience to carry out details, will never succeed in this business. But to one who loves study and work, and who has a genius for doing the right thing at the right time, whether tempted by the alluring sweets or not, there is pleasure and reasonable profit to be extracted from this branch of rural economy.

EUGENE SECOR.

Forest City, Iowa.

The convention then adjourned to meet at 1:30 p.m.

AFTERNOON SESSION.

The meeting was called to order at 1:30 p.m., by the President.

"Some Problems in Apiculture," was the subject of a short but very interesting speech by Prof. Herbert Osborn, giving his views on bee-forage, and also how we could much improve our bees, if so located as to produce a cross on such bees as we desire, and stating that it would be a very good idea to have some young men instructed to make experiments.

The question was then presented: "Could an enterprising man make a livelihood by keeping bees alone?"

Mr. Adams gave his views on the matter, saying that if he was a man who could make a livelihood at other occupations, he could at bee-keeping, but it required a man that could keep at the top of the ladder in everything he undertook.

Mr. W. M. Bomberger read his essay on

Bees and the Farm.

In an introductory way it might be well, if we had the time, to glance at the sentimental side of the relation between the home and the honey-bee, but I will omit it for more important matters. It is too often the case that this side of important questions are left in the background. It would be folly for me to ask any one here if they would keep house without a few colonies of bees on the lawn, or near the kitchen-door.

It is not only a fact that thrift, industry and ingenuity are characteristic traits of the inmates of the hive, but the presence of the homes of our busy little friends near our habitations imparts to us these elements in manhood or womanhood.

You never saw a lazy or stupid person succeed with bees. The bee-fever may sometimes get into the system of a lazy man, but after the first serious attack it leaves him in a seven-fold worse state. The successful bee-keeper is an industrious person, a mechanic, a botanist, a producer, a good salesman, and rarely a scamp. He gets these traits from the hive. He can even get his religion from it.

We are in times now that plainly show that industrial conditions are going through a most radical change, and the farmer, his methods, and his farm, are going rapidly in the same direction. The old farm routine will be a thing of the past—if it is not the farmer sees plainly that his ownership will be. We find, in looking around that the hive is being placed on nearly every farm. The question then comes up, is every person going into the bee-business? And the more serious question follows, what are specialists and bee-keepers going to do if a well-regulated home apiary is placed on all of the best conducted farms, and bees become as common as poultry?

Let us look beyond ourselves and see what the bee will bring with it, as it finds its place on nearly every farm. It will make farms more home-like, and cement home ties. It will throw another gleam of light across the hard beaten path of drudgery, it will give fireside entertainment, it will place one of the

rarest delicacies on the farm table to take the place of that glucose article that should find no other place than in Willie Watson's soup for his Doddies.

We are aware of the fact that the extensive popularity of the honey-bee is, from his standpoint, viewed with alarm by the specialist. And it is alarming to him to see his favorite pursuit thrown into the hands of so many, and in so short a time. I am of the opinion that no specialist or bee-keeper need be alarmed—it will only be a blessing to the farmers, and eventually be a boon to bee-keepers.

It never hurts a business or pursuit or commodity to popularize it. Popularizing a commodity can, but does not, always lead to overproduction. If honey is popularized in the same ratio as there is an increase in bee-keeping, the consumption will be greater, and there will be in no measure enough of the product for the demand, unless it may be a chance year now and then.

But if this is the case, the product is of such a character as will admit of its being kept for a long while. A honey crop is as uncertain as a potato crop, but in years of plenty and overproduction, it is as good as old wheat, and is as safe as that old staple to get money advanced on. Another objection is, that these cheap producers will bear down the market by trading out their cheap honey at the stores, and this will destroy the honey market.

This is not so formidable as it might seem on the surface. Cheap honey means large consumption, and when the price gets very low, it is bartered between farmers at a low price and the low prevailing price in the markets has popularized the product, and if the specialist has had wisdom enough to hold back his crop, he can then get a good price for a good article. If the appetite has been sharpened by a poor article, the public will give a good price for a good article rather than do without it. I have made a study of this market question in the sale of fruits, and know well how it works, and the question of overproduction is a more serious one in horticultural products than in your line of work.

In one town of less than 2,000 inhabitants, six years ago, we found less than 30 bushels of small fruits, and the present season the amount consumed was over 400 bushels. This does not include the grapes, of which there will be between 8 and 10 tons consumed, if the prevailing price is $2\frac{1}{2}$ to 3 cents

per pound. The consumption was less than a half ton 6 years ago.

This increase has occurred in the face of a decreasing population. The growers find that the extensive use of fruit in towns is popularizing it in the country, and that a rapidly increasing country trade requires more extensive planting. It will be just so in the future in the production of honey, and when farmers keep bees, and it becomes general for the consumption to be from 100 to 1,000 pounds of honey per family, there will be as great, if not a greater, demand for honey, than there is now.

So, if in looking around for a diversity in their farm work, they conclude to take up the smoker and put on the veil, we think there is no reason for alarm. The farmer owns the pasture, and he certainly has the first right to fill it with occupants. If the agriculturist is tired of the sorghum field, and an inferior sweet, and concludes that he will quit lugging heavy cane and skimming the molasses pan, and takes up the veil and smoker, he is going to sow forage crops for the new kind of stock he places on his premises, and this will result in a better bee-pasturage, which will be a big advantage to the specialist. So the specialist, with superior knowledge and dexter skill, will have the advantage, and we think that if viewed in the proper light, it will be an advantage to everybody in any way connected with apiculture to have bees occupy the same place on the farms as poultry does now.

W. M. BOMBERGER.

Messrs. Eugene Secor and E. Ketchmer were appointed as a committee to confer with the Legislature, asking for an appropriation to pay the preliminary expenses of an exhibit of bees and honey at the World's Fair at Chicago, in 1893.

The following officers were elected for the ensuing year:

President, Eugene Secor, Forest City, Iowa.

Vice-President, C. D. Levering, W iota, Iowa.

Secretary, J. W. Bittenbender, Knoxville, Iowa.

Treasurer, Joseph Nysewander, Des Moines, Iowa.

Knoxville, Iowa.

The Great Interest which is felt in sea-coast defense gives a peculiar timeliness to the illustrations of great guns at Sandy Hook, contained in *Frank Leslie's Illustrated Newspaper*.

Preserving Empty Combs.

WM. CAMM.

Among the earliest books on bee-keeping that fell into my hands was Quinby's *Mysteries*. The author gave one but little hope of saving empty combs from the wax-moth by enclosing them in tight receptacles. Indeed, I think the writer said he had sealed up comb in air-tight vessels, and yet had them infested with moth. The impression left upon my mind was that the price of spare comb was like the price of liberty, eternal vigilance. For years I sulphured my spare combs occasionally, and hung them where the air was so free about them that, except in hot weather, it could not rise in temperature to the hatching point; so that any eggs laid upon them remained inert.

In 1887 I had combs remain without any swarms upon them, and as I was looking for a new location, and was expecting to break up my apiary, I left them in empty hives, merely seeing that the entrances were well closed. The next year was a worse one; and I moved to where I had no honey-house or any conveniences for bee-keeping. More bees had died during the Winter, and they continued to starve out during the Summer of 1888.

The prospect was so bad on account of drouth that Spring, that I paid little attention to my empty combs until the rains set in about the middle of May. I supposed from the little I had accidentally seen that my combs were all destroyed, but when I came to overhauling my hives, to have them ready for swarms, what was my surprise to find comb in hives, two stories high, that had been tenantless for two years, quite intact, and with the exception of some mold, ready for bees to put honey in. Fully half my combs, kept in this careless, slip-shod manner were so little damaged by moth and mold, that bees filled them up in a day or two after they were put upon them.

Many hives were telescopes, and (for some reason that I cannot satisfactorily explain) most of the combs in these hives were wholly destroyed by moth, or so moldy that bees cut them out, but in some permanent double-walled hives two stories high, they were as nicely preserved as one could wish. The single-walled hives did the best, though no better made or cared for than the others. Some of the telescope hives, that had the entrance in the cap only fastened

up, had the half-inch space about the brood-chamber so full of cocoons that the hives were with difficulty gotten out of the caps, and presented a scarred and sorry sight. Of course, combs from the extractor, that had been put away with honey on them, were all right, and the ants had gotten into only one or two hives.

My hives are well made; better, perhaps, than the average, and after careful examination I am at a loss to account for the preservation of the combs in some, and their loss in others, all equally tight. In one hive containing 20 combs, I found a colony of large black ants, but no moths. Here the combs were smeared with honey, from the extractor, two years before when put away. Wherever the hive had been cracked or shifted accidentally on the stand, so as to leave an opening large enough to permit the entrance of moths, the combs were destroyed, unless it was one that contained no pollen, and had not been bred in.

I have exposed such combs, in sections, for years without having them damaged, and should not expect any trouble in keeping such; but in a large apiary there are but few such combs used in frames. I use the same above that I do below, because I find it best in the Spring to transfer all drone-combs, or combs that are too largely drone-celled, to the upper story for store comb, and most of these are either bred in before they are lifted, or the queen goes up and lays in them after they are lifted.

Except there is a very late honey-flow, too, most of the upper-story combs are put back on the hives till time to remove supers for Winter, and are not covered with honey as a protection from either moth or mold, till the time comes to use them again.

Here, let it be noticed in passing, is an argument in favor of tiering up for extracted-honey, that is of using frames of half the depth of those in the brood-chamber, and as soon as one is filled, without waiting for it to be sealed, put another super, filled with half frames, underneath the first; and so on until the season is closed, as advised by Dadant's revision of Langstroth. You are not only clear of brood, but you can get out of a set of half-frames, two-thirds as much honey as you could out of a set of full ones; you can handle them easier, and faster; they do not melt down so readily, nor the combs break in extracting; while, the season being closed, you put your combs away from the extractor, guarded with honey, till needed again,

and then, being covered with sweets, they are very attractive to the bees.

Has any one tried putting empty combs away in a light trough, or box, painted with coal tar?—*Bee-Keepers' Guide.*

Southern Calif. Bee-Keepers' Association.

GEO. W. BRODBECK, SEC.

To the Bee-Keepers of California:

The Southern California Bee-Keepers' Association will hold their Second Annual session at Los Angeles, in the W. C. T. U. Hall, on Wednesday, Oct. 21, at 9 a.m.

This association has been in existence one year, and has met with such marked success that at present its membership outnumbers some of the Eastern State associations that have been organized for years. The object in forming this association was for "mutual benefit and protection," and with this aim in view, we desire to enlist every one in the State of California "who owns and handles bees."

The success of this organization proves beyond question that the bee-keepers of the State begin to realize the necessity of building up and fostering the honey industry of California.

During the past few years this interest has seemingly been dormant, and as a result, while other industries have prospered, and by banding together have secured the law's protection by proper legislation, we, as a class, have secured nothing. California is the largest honey producing State in the Union, consequently ought to rank first in everything that tends to aid and build it up. Every industry in the State is making a determined effort to secure proper recognition at the World's Fair, and to accomplish this are doing their utmost to secure their portion of the State's and counties' appropriations, and it is high time we were doing likewise.

California's apicultural display at the World's Fair in 1893, will depend entirely on the concerted action of the bee-keepers of the whole State, and this will never prove a success unless we are represented by a State association. There is a proposition now before this association to convert it into a State association, so if you possess any pride in the bee-keepers' industry, or consider your own interests, the necessity of a strong and permanent organization cannot be questioned.

We suggest to every county and local bee-keepers' association in the State to send at least one individual to represent their interests at this October meeting. We extend a most earnest invitation to every bee-keeper in the State, both male and female, and have made provisions for the largest assemblage ever held on this coast.

There will be "Ramblers" from all sections: invite your friends to join with you, and if possible inform us of those who will be present.

223 S. Spring St., Los Angeles, Calif.

Toronto Industrial Exhibition.

R. F. HOLTERMANN.

The honey exhibit at Toronto this year is not entirely unlike that of former years. The quality is probably about the same as that of last year, the number of exhibitors one less.

As to quality, that of the extracted-honey is hardly up to the standard of former years, several exhibits having a slight touch of that in their honey which would debar it from being called strictly first-class. There are only two which show honey having an appreciable quantity of linden honey in it.

The comb-honey is decidedly not as well filled as formerly, showing a honey-flow which has almost become old-fashioned, we having had four poor seasons in succession.

As to the style of exhibit, there appears to be a tendency to set comb-honey crates on their ends, instead of on their bottoms. This innovation is probably owing to a movement in that direction by Mr. Hall, of Woodstock.

There is also a very decided tendency to forsake shelves for exhibiting extracted-honey, and making pyramids of honey in glass, with glass or light boards between each story, as the pyramid is built. Your humble servant first introduced that system, having in turn copied it from W. Z. Hutchinson, at the Detroit Fair.

I think the largest prize winners are in order as follows: E. L. Goold & Co., R. H. Smith, Geo. Laing, J. B. Hall, and William Goodger. A good deal of taste has been displayed, and we all concede that Mr. Smith fairly and squarely won the first prize for the neatest and most attractive exhibit. In fact, the judges appear to have done their work so well that there has come to my ears not one word of complaint.

This reflects credit not only on the judges, but on the exhibitors.

For the latest and best invention, E. L. Goold & Co. take first prize. They exhibit a 2 and 4-frame honey extractor; the combs all reversible. The advantage over the Stanley, it is claimed, being no loose bottom hinge, each basket must reverse, it takes a small can, and the entire machine is much less expensive. Second prize Mr. Leach takes on the foundation and section folder already described in the BEE JOURNAL. Third prize was awarded to the Porter bee-escape, shown by Mr. Hall.

PRIZE LIST.

Best display of 200 pounds of extracted granulated honey, in glass—First prize, R. H. Smith, Bracebridge; second, E. L. Goold & Co., Brantford; third, J. B. Hall, Woodstock.

Best display of 500 pounds of liquid extracted-honey, of which not less than 250 pounds must be in glass, quality to be considered—First, Geo. Laing; second, E. L. Goold & Co.; third, J. B. Hall.

Best display of 500 pounds of comb-honey in sections, quality to be considered—First, J. B. Hall; second, George Laing; third, E. L. Goold & Co.

Best display of 20 pounds of comb-honey in sections, quality to be considered, that is to say, clean sections and best filled—First, J. B. Hall; second, Geo. Laing; third, R. H. Smith; fourth, Wm. Goodger, Woodstock.

Best display of 100 pounds of extracted liquid linden honey, in glass, quality to be considered—First, George Laing; second, E. L. Goold & Co.

Best display of 100 pounds of extracted liquid clover honey, in glass, quality to be considered—First, R. H. Smith; second, E. L. Goold & Co.; third, Geo. Laing.

Best beeswax, not less than 10 pounds—First, Geo. Laing; second, R. F. Holtermann; third, R. H. Smith.

Best foundation for brood-chamber—First, E. L. Goold & Co.

Best foundation for sections—First, E. L. Goold & Co.

Best aparian supplies—E. L. Goold & Co.

Style and assortment of glass for retailing extracted-honey—First, R. H. Smith; second, E. L. Goold & Co.

Section super for top-story and system of manipulating, product to be exhibited in super as left by the bees—First, E. L. Goold & Co.; second, J. B. Hall; third, Geo. Laing.

Best and most practical new invention for the apiarist, never shown before at

this exhibition—First, E. L. Goold & Co.; second, W. O. Leach; third, J. B. Hall.

Largest and best variety of uses to which honey may be put in goods—First, R. H. Smith; second, Geo. Laing.

For the most tasty and neatly arranged exhibit of honey in the aparian department, all the honey to be the production of the exhibitor. Twenty-five dollars of this prize is given by the Ontario Bee-Keepers' Association—First, R. H. Smith; second, J. B. Hall; third, E. L. Goold & Co.

To the exhibitor taking the largest number of first prizes for honey at this exhibition, 1891—First, R. H. Smith; second, Geo. Laing and J. B. Hall.

The judges, Messrs. C. W. Post, Murray, Ont.; J. B. Aches, Poplar Hill; and Murray, of Owen Sound, appear to have given very general satisfaction, and went about their business in a way to convince the exhibitors that they intended to do their duty without fear or favor.

Not Luck or Chance, but Science.

THOMAS KELLEY.

Being puzzled in the management of my bees, I went to see Mr. Geo. E. Hilton, on July 13, related my troubles, and I shall never forget his interesting conversation, practically illustrated by hives, surplus cases, and general manipulations.

If you are a beginner in bee-culture it will pay you to go 100 miles or more to visit Mr. Hilton, and you will be convinced, as I was, that he has no secrets, but that his experience of 14 years is a gift to the seeker for information.

I now have \$50 or \$60 worth of the finest comb-honey I ever saw, having taken within six weeks from a single hive 112 finished sections, or about 100 pounds.

Mr. Hilton came to see me on July 30, and said I was getting the honey from what he called "Willow Herb." He proved to me that bee-keeping is no longer luck and chance, but a science.—*Michigan Farmer.*

Bee Journal Posters, printed in two colors, will be sent free upon application. They may be used to advantage at Fairs over Bee and Honey Exhibits. Samples sent free. Write a week before the Fair where to send them.

CONVENTION DIRECTORY.

Time and place of meeting.

1891.
Oct. 7, 8.—Missouri State, at Sedalia, Mo.
J. W. House, Sec., Mexico, Mo.
Oct. 10.—Capital, at Springfield, Ills.
C. E. Yocom, Sec., Sherman, Ills.
Oct. 14, 15.—S. W. Wisconsin, at Fennimore, Wis.
Benj. E. Rice, Sec., Boscobel, Wis.
Nov. 19, 20.—Northwestern, at Chicago, Ills.
W. Z. Hutchinson, Sec., Flint, Mich.

[P] In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

North American Bee-Keepers' Association

PRESIDENT—P. H. Elwood Starkville, N. Y.
SECRETARY—C. P. Dadant Hamilton, Ills.

National Bee-Keepers' Union.

PRESIDENT—James Heddon .. Dowagiac, Mich.
SEC'DY AND MANAGER—T. G. Newman. Chicago.

Bee and Honey Gossip.

[P] Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Nice, White Honey.

We are keeping bees, although we hardly make a mark yet. We have 51 colonies in chaff hives, which have not stored a particle of dark honey this year—and not much white honey, either, but what we did get is in 1-pound sections, and as nice as was ever stored in honey-comb.

A. O. HOLLIWELL & CO.
Sears, Mich.

Contradictory but Not Spiteful.

On page 376 Mr. E. L. Pratt alleges that I have searched to "pick up little contradictory points, of no special importance, and fling them at him in a spiteful way." Thus Mr. P. confesses to "contradictory points," but he fails to give evidence of spite. To allege spite unaccompanied with evidence is beneath the dignity of any honorable person. I challenge Mr. Pratt to quote, or to refer to anything I have written that can, by an impartial reader, be construed as aiming "spitefully at" him. He would not have his "contradictory points" mentioned, so he spitefully resents any allusion to them.

Richford, N. Y. — C. J. ROBINSON.

Good Fall Crop of Honey.

We are having a large yield of Fall honey in this part of Nebraska. I shall average from 50 to 75 pounds to the colony. It is of excellent quality.

W. H. CAGIL.

Central City, Nebr., Sept. 18, 1891.

Drone and Worker-Cells.

Under the title of "Bees and their Products," on page 371, Mr. Chalmer says there are 16 drone-cells to the square inch; and 25 worker-cells. Now, if the cells were square, instead of hexagonal, he would have been correct. The area of a drone-cell, in inches, is $1/32$ of the square root of 3, and of a worker-cell $1/50$ of the square root of 3; therefore, a square inch of drone-comb (both sides) contains 36.9 cells, and of worker-comb, 57.7 cells, or in 1,000 square inches of drone-comb there are 36,950 cells, and of worker-comb, 57,735 cells. P. W. LEETE.

Sylvan Beach, N. Y.

Unfit for Winter Food.

There is a cider mill and jelly factory about 20 rods from my apiary, and the owner keeps the doors open while boiling the jelly. It is only a cheap board house, the cracks are open all around, and many of my bees are cooked. The proprietor formerly threw the pomace in the creek, but was obliged to stop that, and now throws it out on the ground. Will it harm my bees, and has he a right to boil cider without protecting his pan and fire so the bees cannot reach them? I have kept bees here for over 21 years. The cider mill was put in long after I began keeping bees, and the jelly-pan was put up two or three years ago. The owner and myself are not at swords' points, but since he deposits the pomace on the ground, I would like to know what is best for me to do. Please answer in the next BEE JOURNAL.

R. D. REYNOLDS.

Cooperstown, Pa.

[Bees will work on the pomace, and store the juice if not prevented from doing so. This cider will soon become sour, and if used for Winter food, will entail heavy losses in bees by diarrhea. The jelly factory should be enclosed with mosquito-bar or wire-cloth to keep the insects out. You should endeavor to induce the owner to do this, or offer to

share the expense with him. The cost will be trifling to screen the doors, windows and cracks, and even if you should bear the whole expense, it might pay you to do so.

If the bees have already stored the cider, you should exchange those frames for others containing good honey, or feed them sugar syrup for Winter stores. The combs of cider may be used in the Spring, when the bees can fly often, but will not do when they are confined during cold weather.—ED.]

Black vs. Italian Bees.

On page 342, Mr. Harker tells us how much better the German bee is than the Italians. He says that they (the blacks) are more gentle to handle. Now, the only way I can account for that statement is to assume that he dislikes foreigners, and champions the black bees, thinking that they are natives of this country. But, joking aside, I think if Mr. H. would try some one's bees that worked for honey as well as queens, that he will get bees that will suit him better than his blacks.

Braceville, Ills.

JOHN BURR.

Indiana State Fair.

The bee and honey exhibit at the Indiana State Fair was an interesting one, although, owing to the poor honey season, the display was smaller than usual. There were 4 exhibitors, and the number of premiums taken by each is placed in parentheses, after each name: Julius Moesch, North Indianapolis (11); R. S. Russell, Zionsville (5); Mrs. Moore, Greensburg (1); Walter S. Pouder, Indianapolis (15). Mr. E. S. Guthrie, of Greensburg, acted as judge. Indianapolis, Ind. W. S. POUDER.

Gathering Honey from Golden-Rod.

Bees in Northern Ohio have been enjoying a big time on golden-rod now for about 10 days, and filling their combs to the bottom of the hive—the nights are too cold to get them into the sections. The clover and basswood honey crop is short here this Summer—about one-fourth of a crop. I wish to go South the coming Winter, to try to get rid of the grip. Will some one in Tennessee advise me where to go? E. GREELEY.

Lorain, O., Sept. 21, 1891.

Wavelets of News.

Young Bees and Fall Honey.

A successful apiarist manages his bees to suit the country in which he lives. What might be best for Florida, would not suit Michigan or Canada. The Fall flow of honey throughout Central Illinois was about a fortnight late, and some species of golden-rod (*Solidago*) are just opening. Polygonum, sometimes called heart's-ease, has commenced to bloom, and bees are gathering a little white honey. Madeira vines, wild cucumbers and mints are also blooming. Strong colonies may be able to store a little surplus honey, but bees do not build much comb in the Fall, unless the weather is unusually warm.

Strong colonies of bees, throughout the Northern and Western States, which are rearing brood during this month, will have plenty of young bees, full of vitality to endure the Winter's cold. Old bees which are worn out with the season's work, will succumb to the first cold blast. It is much better to see that during this month bees are supplied with stores to last until honey is again in the fields, than to feed them in the early Spring months.—*Orange Judd Farmer*.

Sheep and Bees.

For a fruit-grower to antagonize bee-culture argues the most stolid ignorance and stupidity; but there are numerous cases on record where much opposition has come from that source. We have had one instance in this State, even, of a sheep-raiser who went to law with his bee-keeping neighbor, alleging that his bees injured the clover in the pasture in which the sheep grazed.

It is perfectly well known to bee-keepers that bees not only do not injure the plants or fruit which they visit in gathering honey, but the bees are almost indispensable to the fertility of the flowers.

Many bee-keepers are engaged in fruit culture also, and regard the presence of bees as a great benefit to the product of fruit, rather than a damage to it. One of our most enlightened and progressive bee-keepers is a sheep-raiser, and has no fear that the little busy bee, while improving each shining hour (as Dr. Watts says), visiting the clover blossoms of the sheep pasture, will withdraw aught of their nutritive property.—DR. J. W. VANCE, in the *Wisconsin Farmer*.

Sugar Syrup for Bees.

Syrup for bees can be made of any of the cheaper grades of sugar; but when feeding for Winter stores, by all means use the best grade of granulated sugar. Take, say, 12 pounds of sugar and 4 pounds of water; bring it to a boil, this will make a syrup of the proper consistency.

I have repeatedly tried tartaric acid to prevent granulation, but have not been able to notice any benefit and do not recommend it; however, if about 2 pounds of extracted-honey be stirred in as you lift the syrup from the fire, it will do more to retard granulation in the combs than anything that I know of; it will also impart the honey flavor to the syrup, thus making it sought after by the bees.

I notice that some of our friends entertain the idea that by adding more water to the syrup it will go farther. This is an erroneous idea, the bees will evaporate the water and reduce it to a thickness consistent with keeping qualities. If the "blessed bees" were deprived of this faculty, watery sweets would become sour and rancid in their cells.—WALTER S. PODER, in the *Indiana Farmer*.

Well Pleased.—The Sewing Machine and Scales are received in good order, and I am well pleased with them. They do good work. The sewing machine is ornamental as well as useful. The scales are very handy for family use.—G. RUFF, Burlington, Iowa.

Convention Notices.

The Capital Bee-Keepers' Association will meet in the Supervisors' Room of the Court House, at Springfield, Ill., on Oct. 10, 1891, at 10 a.m. C. E. YOCOM, Sec., Sherman, Ills.

The Southwestern Wisconsin Bee-Keepers' Association will hold its next meeting on Wednesday and Thursday, Oct. 14 and 15, 1891, at Fennimore, Grant Co., Wis.

BENJ. E. RICE, Sec., Boscoebel, Wis.

The 5th semi-annual convention of the Missouri State Bee-Keepers' Association will be held at Sedalia, Mo., on Wednesday and Thursday, Oct. 7 and 8, 1891. Rates for those attending are promised at the Sicher and Kaiser Hotels at \$1.50 per day each. All persons so desiring are requested to make apian exhibits. A cordial invitation to attend the convention is extended to everybody.

J. W. HOUSE, Sec., Mexico, Mo.

The Northwestern Bee-Keepers' Society will hold its annual convention at the Commercial Hotel, corner of Lake and Dearborn Streets, in Chicago, Ill., on Thursday and Friday, Nov. 19 and 20, at 9 a.m. Arrangements have been made with the Hotel for back room, one bed, two persons, \$1.75 per day, each; front room, \$2.00 per day for each person. This date occurs during the Exposition, when excursion rates on the railroads will be one fare for the round-trip.

W. Z. HUTCHINSON, Sec., Flint, Mich.

**ADVERTISING RATES.**

20 cents per line of Space, each insertion.

No Advertisement inserted for less than \$1.00.

A line of this type will admit about eight words.
ONE INCH will contain TWELVE lines.**Editorial Notices, 50 cents per line.**
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IN ADVANCE.****DISCOUNTS:**

On 10 lines, or more, 4 times, 10%; 8 times, 15%; 13 times, 20%; 26 times, 30%; 52 times, 40%.

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On 30 lines, or more, 4 times, 20%; 8 times, 25%; 13 times, 30%; 26 times, 50%; 52 times, 60%.

On larger Advertisements, discounts will be stated, upon application.

**Advertisements intended for next week
must reach this office by Saturday of this week.****ALFRED H. NEWMAN,**

BUSINESS MANAGER.

Special Notices.**Subscribers who do not receive their papers promptly, should notify us at once.****Send us one new subscription, with £1.00, and we will present you with a nice Pocket Dictionary.****The date on the wrapper-label of this paper indicates the end of the month to which you have paid. If that is past, please send us a dollar to pay for another year.****Systematic work in the Apiary will pay. Use the Apriary Register. It costs:**

For 50 colonies (120 pages) \$1.00
" 100 colonies (220 pages) 1.25
" 200 colonies (420 pages) 1.50

As there is another firm of "Newman & Son" in this city, our letters sometimes get mixed. Please write *American Bee Journal* on the corner of your envelopes to save confusion and delay.**CLUBBING LIST.**

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the LAST column. The regular price of both is given in the first column. One year's subscription for the *American Bee Journal* must be sent with each order for another paper or book:

	Price of both. Club.
The <i>American Bee Journal</i>	\$1.00
and <i>Gleanings in Bee-Culture</i>	2.00
<i>Bee-Keepers' Guide</i>	1.50
<i>Bee-Keepers' Review</i>	2.00
<i>The Apiculturist</i>	1.75
<i>Canadian Bee Journal</i>	1.75
<i>American Bee-Keeper</i>	1.50
The 7 above-named papers	6.00
and <i>Langstroth Revised (Dadant)</i>	3.00
<i>Cook's Manual (1887 edition)</i>	2.25
<i>Quinby's New Bee-Keeping</i>	2.50
<i>Doolittle on Queen-Rearing</i>	2.00
<i>Bees and Honey (Newman)</i>	2.00
<i>Binder for Am. Bee Journal</i>	1.60
<i>Dzierzon's Bee-Book (cloth)</i>	3.00
<i>Root's A B C of Bee-Culture</i>	2.25
<i>Farmer's Account Book</i>	4.00
<i>Western World Guide</i>	1.50
<i>Heddon's book, "Success,"</i>	1.50
<i>A Year Among the Bees</i>	1.50
<i>Convention Hand-Book</i>	1.50
<i>Weekly Inter-Ocean</i>	2.00
<i>Toronto Globe (weekly)</i>	2.00
<i>History of National Society</i>	1.50
<i>American Poultry Journal</i>	2.25
<i>The Lever (Temperance)</i>	2.00
<i>Orange Judd Farmer</i>	2.00
<i>Farm, Field and Stockman</i>	2.00
<i>Prairie Farmer</i>	2.00
<i>Illustrated Home Journal</i>	1.50
<i>American Garden</i>	2.50
<i>Rural New Yorker</i>	2.50
<i>Nebraska Bee-Keeper</i>	1.50

Do not send to us for sample copies of any other papers. Send for such to the publishers of the papers you want.

When talking about Bees to your friend or neighbor, you will oblige us by commanding the *BEE JOURNAL* to him, and taking his subscription to send with your renewal. For this work we will present you with a copy of the *Convention Hand-Book*, by mail, postpaid. It sells at 50 cents.

Bee-Keeping for Profit, by Dr. G. L. Tinker, is a new 50-page pamphlet, which details fully the author's new system of bee-management in producing comb and extracted-honey, and the construction of the hive best adapted to it—his "Nonpareil." The book can be had at this office for 25c.

Supply Dealers should write to us for wholesale terms and cut for Hastings' Perfection Feeders.

If you have a desire to know how to have Queens fertilized in upper stories, while the old Queen is still laying below—how you may safely introduce any Queen, at any time of the year when bees can fly—all about the different races of bees—all about shipping Queens, queen-cages, candy for queen-cages, etc.—all about forming nuclei, multiplying or uniting bees, or weak colonies, etc.; or, in fact, everything about the queen-business which you may want to know, send for "Doolittle's Scientific Queen-Rearing;" a book of 170 pages, which is nicely bound in cloth, and is as interesting as a story. Price, \$1.00. For sale at this office.

* A Nice Pocket Dictionary will be given as a premium for only one new subscriber to this JOURNAL, with \$1.00. It is a splendid little Dictionary—just right for the pocket. Price, 25 cents.

The Bee-Keepers' Directory, by Henry Alley, Wenham, Mass. It contains his method for rearing queens in full colonies, while a fertile queen has possession of the combs. Price by mail, 50 cents.

Binders made especially for the BEE JOURNAL for 1891 are now ready for delivery, at 50 cents each, including postage. Be sure to use a Binder to keep your numbers of 1890 for reference. Binders for 1890 only cost 60 cents, and it will pay you to use them, if you do not get the volumes otherwise bound.

YOU NEED an Apiary Register, and should keep it posted up, so as to be able to know all about any colony of bees in your yard at a moment's notice. It devotes two pages to every colony. You can get one large enough for 50 colonies for a dollar, bound in full leather and postage paid. Send for one before you forget it, and put it to a good use. Let it contain all that you will want to know about your bees—including a cash account. We will send you one large enough for 100 colonies for \$1.25; or for 200 colonies for \$1.50. *Order one now.*

Please send us the names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you.

W. J. The sewing machine I got of you still gives excellent satisfaction—W. J. PATTERSON, Sullivan, Ills.

When Writing a letter be sure to sign it. Too often we get letters with the name of the post-office, but no County or State. One such came recently, and we looked into the Postal Guide and found there were places by that name in 13 States. That order for goods will have to wait until another letter comes to give the proper address. Be sure to stamp your letter, or it may go to the dead letter office.

Pleasant Employment at Good Pay.—The publishers of **SEED-TIME AND HARVEST**, an old established monthly, determined to greatly increase their subscription lists, will employ a number of active agents for the ensuing six months at **\$50.00 PER MONTH** or more if their services warrant it. To insure active work an additional cash prize of **\$100** will be awarded the agent who obtains the largest number of subscribers. "The early bird gets the worm." Send four silver dimes, or twenty 2-cent stamps with your application, stating your age and territory desired, naming some prominent business man as reference as to your capabilities, and we will give you a trial. The 40 cents pays your own subscription and you will receive full particulars. Address

SEED-TIME AND HARVEST.
10A8t La Plume, Pa.

HONEY AND BEESWAX MARKET.

NEW YORK, Sept. 25.—Comb-honey now arriving. Extracted in good supply, with limited demand. We quote: Comb, fancy white, 1-lb., 15@16c; 2-lb., 13@14c; fair white, 1-lb., 13@14c; 2-lb., 12c. Extracted—California, basswood and orange bloom, 7@7½c; common Southern, 65@70c per gal.; choice, 70@75c. Beeswax, dull, 25@26c.

HILDRETH BROS. & SEGELEN,
28-30 West Broadway.

KANSAS CITY, Sept. 26.—The demand is steady and supply light. We quote: White comb, 15@16c; dark, 10@12c. Extracted, white, 7@7½c; dark, 5@6c. Beeswax, in light supply and good demand, at 23@26c.

CLEMONS, MASON & CO.,
Cor. 4th and Walnut Sta.

CINCINNATI, Sept. 26.—Demand is good, with fair supply. We quote: Choice comb, 14@16c. Extracted, 5@8c. Beeswax is in fair demand and good supply, at 23@25c for good to choice yellow.

C. F. MUTH & SON,
Cor. Freeman & Central Aves.

NEW YORK, Sept. 25.—Demand for honey is increasing, but is exceeded by supply. We quote: Fancy 1-lb. comb, 15@16c; 2-lb., 14c; fair, 1lb., 13@14c; 2-lb., 13c. Extracted—California, 7c; clover and basswood, 7@7½c. Beeswax—in fair demand, with adequate supply, at 25@27c.

CHAS. ISRAEL & BROS., 110 Hudson St.

CHICAGO, Sept. 26.—Demand is active for white comb-honey; supply limited. We quote: Fancy, 16c; other grades, 14@15c. Extracted, 7@8c. Beeswax, quick sale, at 26@27c.

S. T. FISH & CO., 189 S. Water St.

KANSAS CITY, Sept. 26.—The demand is good, with light supply. We quote: Comb—1-lb. white, 16c; dark, 12c; 2 lb. white, 14c; dark, 10c. Extracted—white, 7c; dark, 5@6c. Beeswax, supply and demand light, at 25@26c.

HAMBLIN & BEARSS, 514 Walnut St.

DETROIT, Sept. 26.—The demand for comb-honey is fair and supply good. We quote: Comb, 12@13c; extracted, 7@8c. Beeswax in good supply, and light demand, at 25@26c.

M. H. HUNT, Bell Branch, Mich.

CHICAGO, Sept. 26.—The demand is slow for 1-lb. comb-honey, with good supply. We quote: Choice white comb, 14@16c. Extracted, 6@8c. Beeswax, in light supply, and demand slow, at 27c.

J. A. LAMON, 44-46 S. Water St.

ALBANY, N. Y., Sept. 25.—Demand improving; supply moderate. We quote: White comb, 12@17c. Extracted, 7@8c. Beeswax, scarce and in good demand at 28c.

H. R. WRIGHT, 326-328 Broadway.

NEW YORK, Sept. 25.—Demand good, with fair supply. We quote: No. 1 comb, 16c; No. 2, 13@14c. Extracted—California, 7@7½c; basswood, 7½@8c; Southern, 65@70c per gal. Beeswax, supply and demand fair, 26½@27c.

F. G. STROHMEYER & CO., 125 Water St.

SAN FRANCISCO, Sept. 21.—Demand good, supply small. We quote: Comb, 1-lb., 12@14c. Extracted, 5½@6½c. Beeswax, in light supply and fair demand, at 23c.

SCHACHT, LEMCKE & STEINER,
16 Drumm Street.

CHICAGO, Sept. 26.—Demand is now good, supply is not heavy. We quote: Comb, best grades, 15@16c. Extracted, 6@8c. Beeswax, 26@27c.

R. A. BURNETT, 161 S. Water St.

BOSTON, Sept. 25.—Demand good, supply ample. We quote: 1-lb. fancy white comb, 15@16c; extracted, 7@9c. Beeswax, none in market.

BLAKE & RIPLEY, 57 Chatham St.

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